

ADDITIONAL FEE:

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R E M A R K S

The Office Action issued August 18, 2009, has been received and its contents have been carefully noted.

Claim 1 has been amended to make clear that the side surfaces of the integral foam board with a coarsely porous core are sealed and smoothed by the conventional manufacturing process (page 1, second paragraph of the specification) as distinct from the edges which are smoothed and sealed by an additional step of the process in accordance with the present invention.

Claims 1, 2 and 4, the only claims remaining in this application, stand rejected as being unpatentable over the European Patent Application No. 0 303 576 to Bressan in view of the U.S. Patent No. 5,589,243 to Day.

As explained in applicants' prior Amendments dated February 26, 2009 and July 10, 2009, Bressan discloses a method of closing the edges of a "continuous, aveolate sheet or panel". This aveolate sheet is formed of thin solid

plastic material comprising two side members maintained in separated, parallel relationship by intermediate cross members. An example of such a sheet is attached to this Amendment.

Applicants' "integral foam board" on the other hand, is formed of a plastic material having a "coarsely porous core" -- that is, a solid material with numerous tiny closed cell pores -- and side surfaces which are sealed and smoothed during the manufacturing process to give them an attractive "shiny" finish. A sample of such a board is also attached to this Amendment.

The present invention relates to a method of smoothing and sealing the side edges of the plastic board. In the sample provided, only one such side edge has been subjected to this method.

The patent to Day, which the Examiner has combined with Bressan, discloses a rigid foam board of the type to which the present invention relates. However, Day teaches away from the applicants' method for smoothing and sealing a side edge.

In particular, as shown in Fig. 33, which is reproduced as the sample figure on the title page of the patent, the

side surfaces 375 of the rigid, closed cell expanded foam board 370 are formed by "fiberglass skins" (Column 16, lines 23-33). A resin, which is preferably injected into the fiberglass skins, not only penetrates between the fibers of these skins but also between fibers of intermediate webs 372 that extend between the fiberglass surfaces 375.

The fiberglass surfaces 375 and the intermediate webs 372 thus form a structure much like that of an aveolate sheet -- a sheet which is filled with a rigid plastic foam.

Therefore, while Day does disclose plastic foam boards made of PVC, as described in Column 2, lines 33-36, these boards are sandwiched together with the absorptive fiberous web sheets to form laminated boards. Day fails to hint at the problem, or provide a solution to the problem, of porous edges which occur with an integrated foam board. In Column 7, lines 60-61, the passage cited by the Examiner, merely states that "when fiberous sheets 42 [sheets equivalent to side surfaces 375 in Fig. 33] are cut by a band saw, the cutting operation frays the longitudinal edges of the webs 62 [intermediate webs 372 in Fig. 33]. Thus it is the webs 62, not the porous core material, which is rough and

unsightly. These frayed edges result only from the fiberous structure of the sheet material (fiberglass).

The problems resulting from the coarsely porous core of the integral foam board, as described on pages 1 and 2 of this application, are neither disclosed nor alleviated by the manufacturing process of Day.

Therefore, a person of ordinary skill in the art would have received no assistance from Day in smoothing the rough edges of a plastic porous foam board.

Conversely, the frayed edges of fiberous sheet material in a sandwich panel of the type disclosed by Day could not possibly be smoothed and sealed by the method according to the invention. This is because the flexible fiberglass sheet material cannot be smoothed and sealed by heating and cooling in the manner recited in applicants' claim 1.

Finally, if a person skilled in the art were to substitute the plastic porous foam as taught by Day for the thermoplastic material of Bressan, the result would be a reinforced sandwich panel made of a number porous plastic blocks, reinforced with a web of fiberous sheets. This structure would be completely different from the integral foam board of the present invention.

In summary, the patent to Day fails to mention the problems of sealing and smoothing the edges of an integral foam board. The panel disclosed by Day is coated with a separate "skin" to improve the strength and stability of the laminate (Column 8, lines 51-67). There is no hint or suggestion of smoothing the porous thermoplastic core itself.

Accordingly, claim 1, as amended, is believed to distinguish patentably over both Bressan and Day. The allowance of this claim, as well as the dependent claims 2 and 4, are respectfully solicited.

Respectfully submitted,

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